TP-DCDC G

DATA SHEET

Gigabit DC to DC Converter

Features

- **Input Voltage 12VDC or 24VDC or 48VDC**
- **IEEE 802.3af/at Compliant or Passive PoE Output**
- **Dual Inputs for Connecting 2 Power Sources**
- **Integrated 10/100/1000MB PoE Inserter**
- **High Power up to 35W**
- **Low Self Consumption Power**
- **Short Circuit, Over Current and Reverse/Over Voltage Protect**
- **High Temperature Operation**
- **Compact Size – Maximize Available Space**

TP-DCDC-1248GD
17W 802.3af

TP-DCDC-1248GD-HP
35W 802.3af/at

Applications

- **12V / 24V / 48V Battery Systems, Vehicle Applications**
- **Wireless Access Points and Client Devices**
- **IP Phone and Security Camera Systems**

Description

The TP-DCDC Gigabit Series of DC to DC converters offered by Tycon Power Systems are a low cost and high efficiency solution for those requiring IEEE802.3af and IEEE802.3at or Passive Power over Ethernet from a 12VDC or 24VDC or 48VDC voltage source like a battery system or vehicle. They have an integrated POE injector to apply the power and data output to the CAT5 Ethernet cable. The output voltage is regulated and protected. They have two isolated inputs for connecting 2 power sources, like a primary and backup power source. A metal enclosure model is available for industrial applications.

They accept gigabit data-in to a shielded RJ45 Jack and provide gigabit data-out and PoE power on the shielded RJ45 output jack. They work by supplying power on the unused Ethernet pins 4,5(V+) and 7,8(V-). They have various protections for surge, short circuit and overload. The units have power outputs up to 35W.

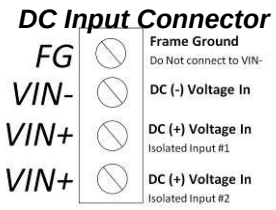
Device Pinouts

RJ-45 Input (Data Only)			RJ-45 Output (Data & Power)	
Pin	***Symbol***	***Description***	***Symbol***	***Description***
1	BI_DA+	Data Pair A+	BI_DA+	Data Pair A+
2	BI_DA-	Data Pair A-	BI_DA-	Data Pair A-
3	BI_DB+	Data Pair B+	BI_DB+	Data Pair B+
4	BI_DC+	Data Pair C+	+Vdc + BI_DC+	power(+)+Data Pair C+
5	BI_DC-	Data Pair C-	+Vdc + BI_DC-	power(+)+Data Pair C-
6	BI_DB-	Data Pair B-	BI_DB-	Data Pair B-
7	BI_DD+	Data Pair D+	-Vdc + BI_DD+	power(-)+Data Pair D+
8	BI_DD-	Data Pair D-	-Vdc + BI_DD-	power(-)+Data Pair D-

Specifications

	TP-DCDC-1224G	TP-DCDC-1248GD	TP-DCDC-1248GD-M	TP-DCDC-1248GD-HP	TP-DCDC-2448GD-HP	TP-DCDC-4848GD-HP
DC Input Voltage	9VDC – 36VDC	9VDC – 36VDC	9VDC – 36VDC	10VDC – 15VDC	18VDC – 36VDC	+/- 36 to 72VDC
DC Input Connector	Removeable Screw Type Compression Wire Terminal (12 AWG Max)					
DC Output Voltage	24V (Passive)	48V (802.3af)	48V (802.3af)	56V (802.3af/at)	56V (802.3af/at)	56V (802.3af/at)
Data in & Data/POE Output Connector	RJ45 (Shielded)					
Output Current (max)	0.8A	0.35A	0.35A	0.625A	0.625A	0.625A
Output Power (max)	19W	17W	17W	35W	35W	35W
Self Consumption Power	1W					
Efficiency (min)	75%					
Line Regulation	1%					
Load Regulation	5%					
Ripple	1%					
Noise	1%					
EMC Standards	FCC Class B EN55022 Class B					
Safety Standards	UL1950, CSA 22.2 &TUV EN60950					
Operating Temperature	-30 to +60°C (-22 to +140°F)					
Operating Humidity	5% - 90%					
Storage Temperature	-40 to +80°C (-40 to +176°F)					
Dimensions (LxWxH)	85 x 76 x 36mm (3.4 x 3 x 1.4")			125 x 75 x 38mm (4.9 x 3 x 1.5")		
Weight	134g (4.7oz)			300g (10.6oz)		
Warranty	1 Year					

TP-DCDC-1248GD-M
(Metal Enclosure)



System Ordering:

TP-DCDC-1224G	9-36VDC IN 24VDC Passive OUT, 19W DC to DC Converter with PoE Inserter
TP-DCDC-1248GD	9-36VDC IN 48VDC 802.3af OUT, 17W DC to DC Converter with PoE Inserter
TP-DCDC-1248GD-M	9-36VDC IN 48VDC 802.3af OUT, 17W DCDC Converter/PoE Inserter. Metal Case
TP-DCDC-1248GD-HP	10-15VDC IN 56VDC 802.3af/at OUT, 35W DC to DC Converter/PoE Inserter
TP-DCDC-2448GD-HP	18-36VDC IN 56VDC 802.3af/at OUT, 35W DC to DC Converter/PoE Inserter
TP-DCDC-4848GD-HP	36-72VDC IN 56VDC 802.3af/at OUT, 35W DC to DC Converter/PoE Inserter

For further information contact:

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